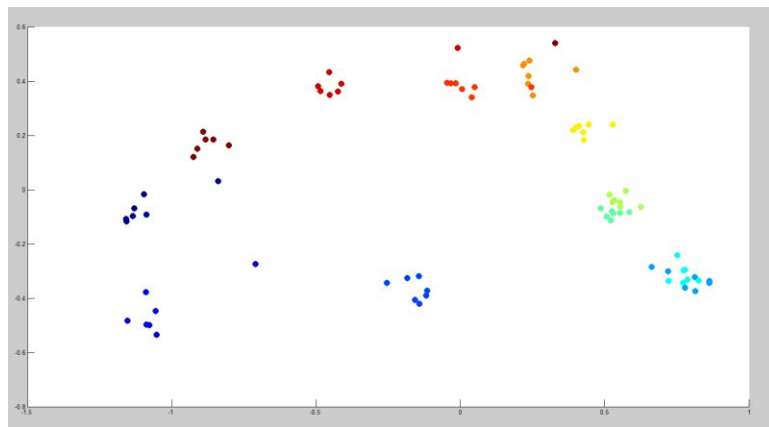


Weekly Report

AMTG计划表

内容	时间	备注
完成可视化系统	7月17日-7月20日	主要问题在于数据格式变了，部分可视化方案也要变化一下
可视化案例探索	7月21日-7月23日	如果案例没有太大变化，论文可以直接使用以前的文字
论文作图，以及最后案例修改	7月24日-7月25日	发给ross
论文文字修改以及视频制作	7月26日-7月31日	

本周还做了一点投影的工作，把计算出来的转移矩阵（每天12个矩阵*7天，一共84个矩阵）使用mds投影，得到以下结果。其中颜色相同的颜色代表某个时间点，从图中可以看到，7天中相同时间的转移矩阵都非常接近，偶尔有些异常点，也许可以进一步研究。我认为这个也许拿来做时间步长的选择：如果6点和8点的点相隔比较远，那么我可以在7点采样一下；以及对不同天的转移进行比较，理论上周末的转移开始得会比工作日晚一些。



AMTG's Review 意见

序号	类型	具体方面	主要内容	详细说明	难易程度	如何修改	完成	备注
1	写作	论文写作	公式太多	The exposition could be improved by removed low-level technical formulation.	易	根据最后文章长度，隐去一些	○	最后修改
2		公式排版	排版问题	P3 second columns: the in-text formulas are hardly readable, then they should be listed as the previous equations	易	公式单独成行	√	
3		论文图片	图2有点误导	Figure 2, it is not clear what is on y-axis. In section 3.1 we assume that trajectory data contains position and time. Time is on x-axis, and y-axis is not clear. It is position, but how is x,y position mapped to a single number remains unanswered.	易	去除时间轴	√	
4		贡献	没有体现"语义"	the remainder of the paper has nothing about semantics (i.e., the meaning) of mobility patterns.	易	去除semantic的词，还是称为mobility pattern	√	
5	相关工作	相关工作	和其他工作比较	A comparison with the current state of the art is missing.	易	和下一点提出的文章进行比较		
6		相关工作	引用文献	Sankey diagrams [Interactive sankey diagrams], similar technique [Visual analytics methods for categoric spatio-temporal data] [Path Line Attributes - an Information Visualization Approach to Analyzing the Dynamic Behavior of 3D Time-Dependent Flow Fields by Shi et al.]	易	根据评委意见加入这些文章	√	
7		相关工作	引用文献太多	There is too much references. Just select 1 refeence instead of a stack of paper to illustrate the same notion.The reference list should be shortcut to one page only.	易	当前的引用文献可能确实有点多，最后可以根据篇幅删除一些[1,2,3,4]，这样类型的引用	○	最后修改
8	方法	模型方法	动静分别聚类	After breaking trajectories into stops and moves, the authors apply clustering to the stops and moves together. It seems much more reasonable to cluster them separately. 否则 It also creates a visualisation problem: in different time steps, the same cluster (= “pattern”) may have different “movement degrees” and therefore the corresponding rectangle may appear on different levels in the graph, which is confusing. If there is a serious reason for clustering stops and moves together, it needs to be explained.	难	按照意见，进行动静分别聚类	√	
9		模型方法	地理特征选择	In particular, why are geographic positions (centroid location and residence location) used as features? hence, it appears logical to cluster all trajectory segments by similarity regarding movement properties (speed, path length, curvature, etc.) irrespectively of locations .It seems much more meaningful to use a few essential features characterizing the movement itself rather than its location and leave the location-related analysis to the interactive facilities of the system.	难	还是想把不同地点的行为分离开，这点有待考虑	√	
10		模型方法	动静轨迹分开特征选择	different features are relevant for characterizing stops and moves.	难	动静分别聚类时，可以采取不同的特征	√	
11		模型方法	特征选择的原因	authors compute 8 feature descriptors (section 4.1). It is not clear why exactly this descriptors are chosen.	易	说明这些特征在划分人群上的功能	√	
12		模型方法	转移时间选取	A weakness of the visualisation is a static selection of representative time moments: every 2 hours. This immediately raises the question: What and how would change if the time step is 1 hour? 3 hours?	易	计算一个比较密集的时间步骤，让用户自由选取	√	
13		模型方法	贝叶斯网络太复杂，直接进行计数	Why not just to use simple counts? How do the results of the performed computations differ from counts? At least they would not differ visually. What are the differences in interpretation?	易	需要说明计算出稀疏的转移矩阵，可以过滤掉边。统计方法的结果和选取的时间范围有关，而我们的方法是计算一个时间点上的，是连续的	√	
14		参数选择	Kmeans参数选择	Choice of K for K-means algorithm: As this choice is extremely relevant for the analysis, a more structured explanation must be given.	难			

15		参数选择	轨迹切割参数选择	The definition of thresholds is really a tough problem. The authors use 30 minutes within 500 meters as stop. This seems arbitrarily but there is no solution to this problem.	易	对数据进行了一番统计，选取的 averages 的采样时间和移动距离	v	
16	可视化	分析任务	更加一般的分析任务	What are the original tasks, or what kinds of patterns analysts are interested to uncover? These tasks or pattern types need to be described at the beginning, and then it should be shown how the chosen features correspond to these tasks or patterns.	易	参考其他文章，好像有类似的任务		
17		可视化设计	周，天的比较	The display is not supportive for exploration of periodic patterns corresponding to the daily and weekly cycles.	易	选取不同的天进行一番比较		
18		可视化设计	AMTG图	1. 节点编码 I do not see why the nodes are color coded dependent on movement. The movement ratio is double coded by position (y axis) and color. The low movement values are hardly seen on the white background, and I see no reason not to make the nodes better visible. 2. 节点大小 The size of the nodes is scaled according to the number of trajectories in a node. as the node heights are very small, the differences are hard to perceive. In figure 1. for example, I would expect the nodes with low movement in night time (00:00, 02:00, 04:00) to be much larger then high-movement nodes. Due to scaling (I suppose) the node sizes do not differ a lot. A numerical indication of smallest node and largest node size would help to get a better impression on nodes size.	易	按照要求进行修改		